

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### A.R.E. Manufacturing

#### Oregon Manufacturing Extension Partnership

#### A.R.E. Manufacturing, Inc. Empowers Their Employees Through Lean

##### Client Profile:

A.R.E. Manufacturing, Inc., located in Newberg, Oregon, specializes in utilizing high end CNC machining equipment to manufacture precision components. Since its foundation in 1980, A.R.E. Manufacturing, Inc. has grown from one lathe in a garage to over 60 employees operating mills, lathes, machining centers, turning centers, automated saws, tube benders and welders. The majority of A.R.E. Manufacturing, Inc.'s business supports the dental, recreation and marine industries.

##### Situation:

In 2004, A.R.E. Manufacturing, Inc. almost tripled in size due to the acquisition of another company's assets. However, A.R.E. Manufacturing did not have sufficient skills or controlled systems in place to effectively manage this growth. Due to these deficiencies, the organization lost much of its ability to manufacture products in any predictable or repeatable fashion. In a short period of time, employee morale decreased, quality dropped and manufacturing lead times increased. All of this resulted in loss of sales and an inability to maintain profitability. A.R.E. Manufacturing was losing its competitive edge and realized a change was needed. Their vision was to empower all of their employees to affect positive change that would impact the organization's sustainability. To do this, the company realized significant investment in training was necessary to increase employee skills and confidence. A.R.E. Manufacturing determined the Lean Enterprise business model best fit this vision but they did not possess the internal knowledge to train and develop their workforce in these philosophies and techniques. The company contacted the Oregon Manufacturing Extension Partnership (OMEP), a NIST MEP network affiliate, for assistance.

##### Solution:

In June of 2005, A.R.E. Manufacturing was awarded a Gateway grant to help fund a company needs assessment and basic training to begin its Lean initiative. While initial training was helpful, it became apparent to organizational leaders that the company was going to need significantly more training and implementation support to successfully transition the entire company. With additional grant awards, the company continued its transition with OMEP assistance, and:

- All employees have received training and skills building in the application of Lean manufacturing principles. Many employees have received more advanced training in the areas of 5S, Value Stream Mapping, Set-up Reduction, Problem Solving and Leadership.
- A.R.E. Manufacturing has transitioned from traditional departmentalized batch and queue processing to a cellular manufacturing approach. This has allowed the organization to build teams that utilize the skills developed in training to self manage their scheduling and implement real time improvements.
- Shop floor best practices for equipment set-up and operation have been developed. These practices have been documented and are used as standard training procedure.
- A.R.E. Manufacturing defined organizational key performance indicators and developed the tools necessary for tracking and monitoring performance. These metrics are used regularly to implement

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countermeasures to keep the system predictable and repeatable.

-- Organizational communication has significantly improved due to open forums, daily toolbox meetings and weekly supervisor meetings. Managers and supervisors have taken on a leadership role and continue to develop through ongoing training and mentoring.

#### **Results:**

- \* Increased sales by \$500,000.
- \* Realized \$300,000 in cost savings due to improved practices and inventory reductions.
- \* Increased on-time delivery from 75 percent to 96 percent.
- \* Reduced customer returns by 43 percent.
- \* Invested over \$150,000 in workforce training and skills development.
- \* Increased wages from \$13.62 per hour to \$15.54 per hour.
- \* Created 15 jobs.
- \* Improved employee involvement and morale.
- \* Achieved a more competitive and profitable position.

#### **Testimonial:**

When the decision was made to transition to a Lean Enterprise, the Oregon Manufacturing Extension Partnership was chosen because they clearly offered a service superior to their competitors. Before using OMEP's services, we were aware that change was necessary, but never found the time to start the process. OMEP, with their very knowledgeable staff, has been a great catalyst to get the process moving and to keep it moving forward. OMEP's consultants have been a pleasure to work with and have shown a genuine interest in the success of the project. As can be seen by the "quantifiable gains" listed above, in just a short period of time the results have been excellent. We're excited about the start of our Lean journey and have learned that it is a continuously changing process. OMEP's continued involvement is vital to our success and the development of manufacturing practices necessary to compete in the global economy. I believe that OMEP's program is critical to the success of manufacturing in the State of Oregon. Domestic manufacturers provide living wage jobs and organizations such as OMEP are essential in keeping manufacturing alive and well in the United States.

Alvin Elbert, President